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[54] GEL COMPOSITIONS PREPARED FROM CROSSLINKABLE POLYSACCHARIDES, POLYCATIONS AND/OR LIPIDS AND USES THEREFOR

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[58] Field of Search **522/87, 88, 84, 522/85, 86, 7, 26; 527/200; 424/93.1, 451, 488, 499; 435/182**

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[57]

ABSTRACT

The present invention relates to a new form of biocompatible materials (e.g., lipids, polycations, polysaccharides) which are capable of undergoing free radical polymerization, e.g., by using certain sources of light; methods of modifying certain synthetic and naturally occurring biocompatible materials to make polymerizable microcapsules containing biological material coated with said polymerizable materials, composites of said polymerizable materials, methods of making microcapsules and encapsulating biological materials therein, and apparatus for making microcapsules containing biological cells (particularly islets of Langerhans) coated with polymerizable alginate or with a composite thereof (e.g., alginate and PEG). The present invention also relates to drug delivery systems relating to the foregoing, as well as bioadhesives and wound dressings made utilizing the foregoing technology.

20 Claims, No Drawings